

P-set Central Team  
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**Need:** All MIT students have classes, and thus all MIT students have homework assignments. Some students are capable of completing their assignments on their own. However, the vast majority of MIT students have learned that the most effective way to complete homework assignments is to work together with other MIT students in groups or ask an instructor for help. Working together in groups provides MIT students an opportunity to better comprehend the course material as well as foster teamwork.

Unfortunately, there are many external factors that make organizing study groups troublesome. It is very unlikely that multiple MIT students have the same class schedule. Many MIT students participate in sports and clubs. Many MIT students live in singles or live a sizeable distance from other students in their classes (or a combination of the two). Massachusetts weather may deter traveling long distances with its humidity, storms, and snow. As a result of these factors, many students may find difficulty in organizing study groups and many are deterred completely from participating in any. The P-set Central team feels that P-set Central will help MIT students find and participate in study groups.

**Description:** P-set Central is a dynamic website whose mission is to give MIT students the means to facilitate the formation of study groups in an online setting. Users can quickly create their own study groups or find study groups that meet in-person or online, receiving notifications via email.

The student begins by logging into the site with their MIT certificate. If it is a student's first time, he/she is guided through a tutorial. The student is first told to add classes, and then a page with a drop down explanation of the site will appear. This drop down explanation will be there for the user until the next day. On the home page, a list of current groups and pending group requests is displayed. The main navigation bar is horizontal at the top of the page, with buttons labeled "Home," "Create a Group," "Join a Group," "User Settings," and "Notifications".

To create a group, six fields must be filled in: name of the group, course, date, time, type of group, and location. The date and time are defaulted to the current date and hour, to make it more convenient for people who want to p-set immediately. The location field for whiteboard sessions is automatically filled out with a link to a site called Dabbleboard, a free online collaborative white board site, which also allows for video and chat conferencing in order to easily collaborate on p-sets. Once these fields are completed and the "Construct!" button is clicked, the student has the opportunity to invite friends, even those who are not using P-set Central, to the group by sending them an automated email. If a user is inviting friends for the first time, then those they invite are automatically added to their "friends list," a list of people who the user invites to the group. In the future, users can update their friends list in the user settings and thus quickly add people to their invite list to send out via email.

When the student hovers over the "Join a Group" button, a dropdown menu appears with three p-set group type categories: in person, whiteboard, or chat. When one of the group types is clicked, the student is sent to a page with all the existing

groups of that type for the classes the student has selected, with each class under its own tab. An additional “View All” tab is available in case users want to simply view all groups of one type. These pages are filter by both class and type, with the goal of making it easier for the user to find a p-set group to join.

Under “User Settings,” there are three settings: email options, manage classes, and edit friends list. Students can choose what type of notifications are sent to their email, add or drop classes from the website and access the Stellar page of each class, and create a list of friends to invite when creating a new study group. Email notifications are defaulted to ‘none’, so that users won’t be spammed unknowingly when first using the site.

P-set Central also has a notification system, inspired by Facebook’s notification system. If the “Notifications” button is clicked, a list of notifications about study groups is displayed. Notifications are automatically generated when a study group’s information is edited, for example, or when another user would like to join a group hosted by the student. Like an internal email system, users can delete and manage their notifications as well. The notification system also has a live component, where notifications are updated on the site live without the need to refresh the page; these messages appear in the bottom right of the page.

The last item on the horizontal navigation bar to the far right is the generic search box. Any phrase can be typed into this search box and any group that matches the query will be listed. Entering a host’s Kerberos ID, for example, will give a list of groups hosted by that person, while entering part of a study group’s name will give a list of groups with that fragment in the name. This search box is not restricted to the list of classes the user has defined, and is meant to be a quick and easy way to search for groups. Clicking on the search link will also lead to an advanced search page, where users can fill out multiple fields to find specific groups.

From any listing of a study group, a user may take certain actions. If the user is the host of a particular study group, he/she can edit the group, delete it, or invite people to join the group. If the user is a member of another user’s study group, or would like to be a member, he/she can “join”, “leave”, or cancel his/her request to join the group.

At the bottom of each page, there are links to information about the MIT Academic Policy, a Contact Us page, an About Us section, and a direct link the MIT’s home page.

**Impact:** We anticipate that P-set Central will become a highly valuable and widely adopted way to organize study groups. P-set Central will help MIT students better organized with their schedules, and more importantly, foster teamwork among MIT students. We also hope that if P-set Central is welcomed by the MIT student body, professors and recitation leaders will hold online study groups. Should P-set Central be accepted well by the entire MIT community, we would like to expand P-set Central to other institutes of higher learning.

**Scale Up:** The P-set Central team would like to infuse its website into the daily lives of members of the MIT community, specifically the lives of MIT students. Possible next steps are to link P-Set Central to Facebook and other social media, as well as to

add text messaging to aid with the notification system and publicity of the website, and also ease of use.

**Team:** The founding members of the P-set Central team are freshmen who met during the fall 2010 semester at MIT in course 21W.785: Communicating with Web-Based Media. Catherine Fan and Stephanie Yu are the primary programmers of P-set Central. Catherine works with HTML and CSS to develop the front end design. Stephanie works with PHP and MySQL, and connects the front end and back end. Since the end of the fall semester, she has continued to modify and implement additional features to P-set Central. Daniel Meza is the team manager and liaison. He documents the progress of the project with the help of Erica Lai. Erica also took care of preparation for the early stages of prototyping and testing, as well as the main text on the website. All members contribute to the ideas, concepts, and design of P-set Central.

Recently, freshman Victor Hung joined the P-set Central team. He has helped revolutionize the front end of P-set Central, especially the look and feel of the website to make it more intuitive and easier to use. He also recently implemented the new live-update notification feature.

**License:** P-set Central uses the MIT License.

**Prototype & Software Requirements:** P-set Central's outlined functions are all working at this time. P-set Central can be accessed at <http://psetcentral.mit.edu>. Please note that P-set Central is only accessible with the installation of a MIT Web Certificate and can only be run via browsers that support MIT Web Certificates.